

(B) Amendments to claims

1. Request to replace claim 2 to stress the difference in Temperature ranges of operation.

In order to make a substantial distinction of range of operation please amend claim 2 to read:

Claim 2 amended: The process for removal of impurities according to claim one, further comprising: maintaining the temperature of said first filter between 50 and 200 degrees Kelvin.

2. Rejection of claim 6 under 35 USC 112 second paragraph.

Please delete claim 6.

3. Rejection of claims 4 because of improper Markush language: there is no Markush language in claim 4

4. Rejection of claims 5 because of improper Markush language. As per phone conversation dated 02/07/2007 the examiner rejection of claim 4 is to be applied to claim 5.

Please amend claim 5 as to read:

Claim 5 "amended": The process for removal of impurities according to claim 1, wherein the impurities are selected from a group consisting of nitrogen dioxide

(NO₂), sulfur dioxide (SO₂), methane (CH₄), oxygen (O₂), carbon monoxide (CO), carbon dioxide (CO₂), ozone (O₃), water (H₂O), ammonia (NH₃), nitrous oxide (N₂O) and volatile hydrocarbons.

5. Rejection of claims 1-12 under 35 USC 112, second paragraph due to the presence in claim one of:

- a. the combination of words: "common impurities"
- b. the indefinite meaning of the word "trough".

Please amend claim one to read:

Claim 1 "amended": A process for removal of impurities from Nitric Oxide gas, for research, industrial, semiconductor, medical, and analytical application, comprising: (a) providing a flow of impure Nitric Oxide, (b) passing this gaseous mixture through a first filter composed by a mixture of hydroxides of alkali and earth alkali metals, (c) passing the mixture through a second filter system, (d) collecting the purified gas in a sealed delivery tank.

6. Rejection of claim 8 because improper Markush language.

Please amend claim 8 "amended": The process for removal of impurities from nitric oxide according to claim 1 where the mixture of hydroxides of alkali and earth alkali metal is selected by the group consisting of sodium hydroxide, barium hydroxide, calcium hydroxide, lithium hydroxide, magnesium hydroxide, potassium hydroxide, strontium hydroxide, cesium hydroxide, francium hydroxide, and silica hydroxide.

(C) Listing of claims

Claim 1 (amended): A process for removal of impurities from Nitric Oxide gas, for research, industrial, semiconductor, medical, and analytical application, comprising: (a) providing a ~~mixture~~ flow of impure Nitric Oxide ~~and its common impurities~~, (b) passing this gaseous mixture ~~trough~~ through a first filter composed by a mixture of hydroxides of alkali and earth alkali metals, (c) passing the mixture through a second filter system, (d) collecting the purified gas in a sealed delivery tank.

Claim 2 (amended): The process for removal of impurities according to claim one, further comprising: maintaining the temperature of said first filter between 50 and 200 ~~298~~ degrees Kelvin.

Claim 3 (original): The process for removal of light impurities according to claim 2, further comprising: maintaining a pressure between 0.1 and 1,000 atmospheres inside said delivery tank.

Claim 4 (original): The process for removal of impurities according to claim 1, further comprising: retaining impurities in said first filter and in said second filter.

Claim 5 (amended): The process for removal of impurities according to claim 1, wherein the impurities are selected from a group ~~comprising~~ consisting of nitrogen dioxide (NO₂), sulfur dioxide (SO₂), methane (CH₄), oxygen (O₂), carbon monoxide (CO), carbon dioxide (CO₂), ozone (O₃), water (H₂O), ammonia (NH₃), nitrous oxide (N₂O) and volatile hydrocarbons.

Claim 6 (canceled)

Claim 7 (original): The process for removal of impurities from nitric oxide according to claim 1 where the mixture of hydroxides of alkali and earth alkali metals contains sodium hydroxide.

Claim 8 (amended): The process for removal of impurities from nitric oxide according to claim 1 where the mixture of hydroxides of alkali and earth alkali metals ~~contains anyone~~ is selected by the group consisting of the following compounds: sodium hydroxide, barium hydroxide, calcium hydroxide, lithium hydroxide, magnesium hydroxide, potassium hydroxide, strontium hydroxide, cesium hydroxide, francium hydroxide, and silica hydroxide.

Claim 9 (original): The process for nitric oxide purification according to claim 1, wherein said mixture of hydroxides of alkali and earth alkali metals is replaced upon depletion.

Claim 10 (original): The process for nitric oxide purification according to claim 1, wherein said second filter contains a molecular sieve.

Claim 11 (original): The process for nitric oxide purification according to claim 1, wherein said second filter is regenerated by flushing a dry gas and by heat.

Claim 12 (original): The process for nitric oxide purification according to claim 1, wherein said nitric oxide conveyed to said delivery tank has a percentage of impurities between 0% and 1 %.